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## PATENT ABSTRACTS OF JAPAN

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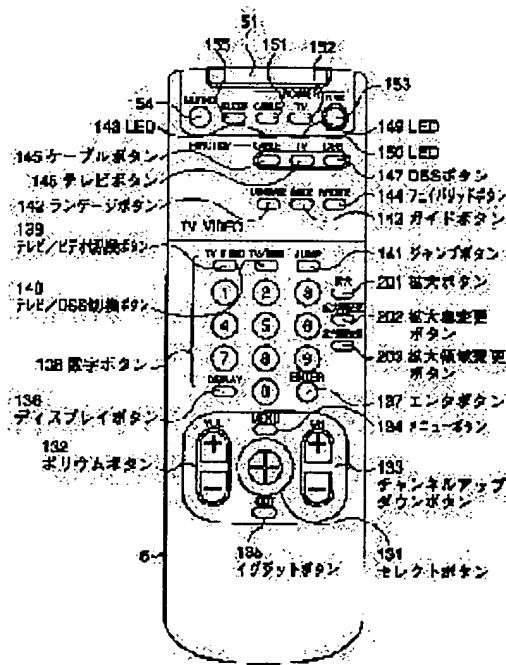
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## (54) UNIT AND METHOD FOR IMAGE DISPLAY CONTROL, AND RECORDING MEDIUM

## (57)Abstract:

PROBLEM TO BE SOLVED: To accurately recognize an image even at a distance by enlarging part of a source image.

SOLUTION: When an enlargement button switch 201 of a remote commander 6 is operated, part of the source image which is outputted from a personal computer 1 and displayed on a television image receiver is enlarged and displayed. When a select button switch 131 of the remote commander 6 is directed and operated, the enlarged image is moved in the direction corresponding to the operation and displayed. When an enlargement rate change button switch 202 is operated, the enlargement rate is varied and when an enlargement area change button switch 203 is operated, the size of the enlargement area is varied.



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CLAIMS

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[Claim(s)]

[Claim 1] The 1st actuation means operated by remote control when displaying the scaling image which carried out the scaling of some subject-copy images currently displayed on said display in the image display control unit which controls the display of the image in a display, The image display control unit characterized by having the 2nd actuation means operated by remote control when moving in the field as for which said subject-copy image carries out a scaling, and the display-control means which superimposes said scaling image on said subject-copy image, and is displayed on said display.

[Claim 2] The image display control unit according to claim 1 characterized by having further the 3rd actuation means operated by remote control when changing the scale factor of the scaling image to said subject-copy image.

[Claim 3] The image display control unit according to claim 1 characterized by having further the 4th actuation means operated by remote control when changing the field of the scaling of said subject-copy image.

[Claim 4] Said 1st actuation means and the 2nd actuation means are an image display control unit according to claim 1 characterized by being arranged at the remote commander which carries out outgoing radiation of the infrared signal corresponding to actuation.

[Claim 5] Said remote commander is an image display control unit according to claim 4 characterized by being used also for control of an AV equipment.

[Claim 6] The 1st step processed corresponding to the remote control signal inputted when displaying the scaling image which carried out the scaling of some subject-copy images currently displayed on said display in the image display control approach which controls the display of the image in a display, The 2nd step processed corresponding to the remote control signal inputted when moving in the field as for which said subject-copy image carries out a scaling, The image display control approach characterized by having the 3rd step processed when said scaling image is superimposed on said subject-copy image and it is made to display on said display.

[Claim 7] In the record medium which recorded the program which controls the display of the image in a display said program The 1st step processed corresponding to the remote control signal inputted when displaying the scaling image which carried out the scaling of some subject-copy images currently displayed on said display, The record medium characterized by having the 2nd step processed corresponding to the remote control signal inputted when moving in the field as for which said subject-copy image carries out a scaling, and the 3rd step processed when said scaling image is superimposed on said subject-copy image and it is made to display on said display.

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**DETAILED DESCRIPTION**

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[Detailed Description of the Invention]

[0001]

[Field of the Invention] Especially this invention relates to a record medium about a record medium in the image display control unit which made the display image more legible and an approach, and a list at an image display control unit and an approach, and a list.

[0002]

[Description of the Prior Art] Usually, the personal computer as OA equipment is equipped with the display of dedication separate from the monitor or television receiver in the so-called AV (Audio Visual) system, and he is trying to display a processing image there.

[0003] And when seeing the image (for example, alphabetic character edited with the application of a word processor) displayed on the display processed with a personal computer, as for a user, it is common to see the image of a display to a display from a comparatively near location (for example, location of less than 1 meter). On the other hand, it was displayed on the display as an AV system, for example, when seeing the image of television broadcasting, it is common [ a user ] to see from a location (for example, 3 meters away location) comparatively distant from a display.

[0004]

[Problem(s) to be Solved by the Invention] By the way, in the system of HES (Home Entertainment Station) (trademark), displaying the image which installs a personal computer in the living room of for example, each home, and processes it with a personal computer on the same display as the display which displays the image of television broadcasting is proposed. Unlike the case in usual OA equipment, in such a system, the image processed with a personal computer as well as the case in an AV equipment will be seen from the comparatively distant location.

[0005] Consequently, the technical problem to which it becomes difficult to recognize the icon which consists of text or a fine graphic form occurred.

[0006] This invention is made in view of such a situation, and enables it to recognize an image even from the distant location to accuracy.

[0007]

[Means for Solving the Problem] An image display control unit according to claim 1 is characterized by to have the 1st actuation means operated by remote control when displaying the scaling image which carried out the scaling of some subject-copy images currently displayed on the display, the 2nd actuation means operated by remote control when moving in the field as for which a subject-copy image carries out a scaling, and the display-control means which superimposes a scaling image on a subject-copy image, and is displayed on a display.

[0008] The 1st step processed corresponding to the remote control signal inputted when the image display control approach according to claim 6 displays the scaling image which carried out the scaling of some subject-copy images currently displayed on the display, It is characterized by having the 2nd step processed corresponding to the remote control signal inputted when moving in the field as for which a subject-copy image carries out a scaling, and the 3rd step processed when a scaling image is

superimposed on a subject-copy image and it is made to display on a display.

[0009] A record medium according to claim 7 a program The 1st step processed corresponding to the remote control signal inputted when displaying the scaling image which carried out the scaling of some subject-copy images currently displayed on the display, It is characterized by having the 2nd step processed corresponding to the remote control signal inputted when moving in the field as for which a subject-copy image carries out a scaling, and the 3rd step processed when a scaling image is superimposed on a subject-copy image and it is made to display on a display.

[0010] In an image display control unit according to claim 1, the image display control approach according to claim 6, and a record medium according to claim 7, the scaling image with which the scaling of some subject-copy images currently displayed on the display was carried out is overlapped on a subject-copy image, and is displayed on a display by remote operation. The field as for which a subject-copy image carries out a scaling is moved if needed. Therefore, it becomes possible to recognize the subject-copy image of the location of arbitration to accuracy.

[0011]

[Embodiment of the Invention] Although the gestalt of operation of this invention is explained below, it is as follows, when the gestalt (however, an example) of operation [ / in the parenthesis after each means ] is added and the description of this invention is described, in order to clarify response relation between each means of invention given in a claim, and the gestalt of the following operations. However, of course, this publication does not mean limiting to what indicated each means.

[0012] The 1st actuation means operated by remote control when an image display control unit according to claim 1 displays the scaling image which carried out the scaling of some subject-copy images currently displayed on the display (For example, the amplification carbon button 201 of the remote commander 6 of drawing 7 ), and the 2nd actuation means operated by remote control when moving in the field as for which a subject-copy image carries out a scaling (for example, select button 131 of the remote commander 6 of drawing 7 ), It is characterized by having the display-control means (for example, graphics operation section 75 of drawing 6 ) which superimposes a scaling image on a subject-copy image, and is displayed on a display.

[0013] An image display control unit according to claim 2 is characterized by having further the 3rd actuation means (for example, dilation ratio modification carbon button 202 of the remote commander 6 of drawing 7 ) operated by remote control when changing the scale factor of the scaling image to a subject-copy image.

[0014] An image display control unit according to claim 3 is characterized by having further the 4th actuation means (for example, amplification field modification carbon button 203 of the remote commander 6 of drawing 7 ) operated by remote control when changing the field of the scaling of a subject-copy image.

[0015] The 1st step processed corresponding to the remote control signal inputted when the image display control approach according to claim 6 displays the scaling image which carried out the scaling of some subject-copy images currently displayed on the display The 2nd step processed corresponding to the remote control signal inputted when moving in the field as for which a subject-copy image carries out a scaling to (for example, the step S1 of drawing 11 R> 1) (for example, step S3 of drawing 11 ), It is characterized by having the 3rd step (for example, step S7 of drawing 11 ) processed when a scaling image is superimposed on a subject-copy image and it is made to display on a display.

[0016] A record medium according to claim 7 a program The 1st step processed corresponding to the remote control signal inputted when displaying the scaling image which carried out the scaling of some subject-copy images currently displayed on the display (for example, step S1 of drawing 11 ), The 2nd step processed corresponding to the remote control signal inputted when moving in the field as for which a subject-copy image carries out a scaling (for example, step S3 of drawing 11 ), It is characterized by having the 3rd step (for example, step S7 of drawing 11 ) processed when a scaling image is superimposed on a subject-copy image and it is made to display on a display.

[0017] Drawing 1 shows the example of AV structure of a system adapting the image display control unit of this invention. In the gestalt of this operation, the personal computer 1 is connected to the

television receiver 3 with AV equipments 2, such as a tuner, amplifier, and a videodisk player. The television receiver 3 has CRT4 which displays an image, and the loudspeaker 5 which outputs a sound signal. In addition, IRD (Integrated Receiver/Decoder) which receives satellite broadcasting service is also contained in AV equipment 2.

[0018] Moreover, a remote commander 6 has various kinds of carbon buttons, and is made as [ carry out / from the infrared dispatch section 51 / to IRD7 and a personal computer 1 / outgoing radiation of the infrared signal corresponding to those actuation ].

[0019] As shown in drawing 2, the personal computer 1 is made as [ display / through a predetermined cable / outputs, such as IRD7 contained in AV equipment 2, / on a television receiver 3 / output and ], although a graphic display is omitted while connecting with the television receiver 3 by the display cable 7.

[0020] Drawing 3 expresses the appearance configuration of a personal computer 1. 225mm and height are set to 94mm, and, as for the personal computer 1, depth is set to 350mm for the width of face. Moreover, the door 21 which can be opened and closed freely is formed in the front face of a personal computer 1, and the field 22 is established in right and left of a door 21. The infrared receive section 24 which receives the infrared radiation by which outgoing radiation was carried out to the power switch 23 operated when a power source is turned on or turned off from the infrared dispatch section 51 of a remote commander 6 is formed in the left-hand side field 22 among drawing.

[0021] Moreover, when the peripheral device connected to a personal computer 1 is laid in the top face of a personal computer 1, the crevice 25 is formed in the location corresponding to the leg of a peripheral device so that the leg of the peripheral device may be stabilized on the top face and may be arranged on it.

[0022] Drawing 4 shows the condition of having opened the door 21 of a personal computer 1. If a door 21 is opened as shown in this drawing, it is made as [ be / the DVD (Digital Versatile Disc) drive 33 / exposed ]. Moreover, under this DVD drive 33, the USB terminal 31 as serial interface and 1394 terminals 32 of IEEE(Institute of Electrical and Electronics Engineers) 1394 specification are formed.

[0023] Drawing 5 shows the condition of having opened the door 41 of the tooth back of a personal computer 1. If a door 41 is opened as shown in this drawing, it is made as [ be / the PC card insertion opening 42 / exposed ]. Moreover, under the PC card insertion opening 42, the printer terminal 45 which connects a printer besides the USB terminal 43 and 1394 terminals 44, and the VGA terminal 46 which outputs computer graphics data are formed.

[0024] Drawing 6 expresses the example of a configuration inside a personal computer 1. As for CPU (Central Processing Unit)71, Pentium (trademark) of for example, Intel is used. This CPU operates with an internal clock with a frequency of 166MHz or an external clock with a frequency of 66MHz. RAM72 is 16MB of main memory, and memorizes suitably the data processed by CPU71, a program, etc.

CPU71 performed various kinds of processings upwards, and ROM73 has memorized the required program. EEPROM (Electrically Erasable Programmable Read Only Memory)74 memorizes suitably the data which need to be memorized even after turning off the power source of a personal computer 1.

[0025] the graphics operation section 75 -- animation processing (the color space conversion changed into the RGB code of graphics signal data format from the YUV signal which is the display form of a video data --) Perform scaling (amplification or cutback) processing for displaying with a desired screen size etc., and also 3D-Graphics processing (for example, the rasterize processing for projecting the body of a three dimension on the screen of a secondary screen) Alpha blending processing for expressing the gouraud shading processing for showing the front face of an object smoothly and a translucent object etc. is performed, or the processing result is further written in a display memory 76, and processing outputted to the synthetic circuit 85 is performed.

[0026] The MPEG 2 video decoder 77 decodes the data reproduced by the DVD drive 33 from DVD, and outputs them to the synthetic circuit 85. The digital sound processing section 81 performs FM (Frequency Modulation) sound configuration (namely, processing which generates an audio signal by compounding two or more sine waves of a different frequency and the amplitude) or MIDI (Musical Instrument Digital Interface) wave table composition processing for sound effect generation, such as

expanding of an ADPCM (Adaptive Difference Pulse Code Modulation) sound source, expanding of MPEG audio data, a reverberation sound, and surround, etc. MIDI wave table composition processing is the synthesizer built in using the wave table which memorized the digital data used as the phoneme of a musical instrument sound, and is processing which reproduces MIDI data. Each processed audio signal is mixed by the audio mixer built in, is changed into an analog audio signal, and is outputted to the loudspeaker 5 of a television receiver 3.

[0027] The board 78 for Intericast (trademark) is a board which performs processing to which receives broadcast of INTAKYASUTO through an antenna 91 and it restores. In INTAKYASUTO, the HTML (Hyper Text Markup Language) data used as the radical of the page of World Wide Web (WWW) are inserted in the vertical-retrace-line period of a video signal, and it transmits to it. The received data are stored in the hard disk driven by the hard disk drive (HDD) 80. To going back and forth the inside of the HTML data of a hard disk drive 80, a user can use an interactive environment as a hand in false.

[0028] For example, in the case of a sports program, in accordance with the content of the program, a score, the still picture of a decisive scene, a video clip, etc. are transmitted by this INTAKYASUTO. These still pictures and video clips are linked with related information, for example, access a link place through an analog telephone line, and are made as [ obtain / the related information ]. Intel develops this INTAKYASUTO.

[0029] The DSVD (Digital Simultaneous Voice & Data) modem 79 performs processing which carries out recovery separation of a sound signal and the data from the signal of the DSVD method inputted through the telephone line while it carries out Time Division Multiplexing of voice and the data by the DSVD method which Intel developed and outputs them to the telephone line through a modular jack 92. In this method, the sound signal which carried out digital compression, and the usual sound signal are multiplexed using the header of a V.42 protocol. When a sound signal does not exist, the maximum data transfer rate becomes 28.8k bits per second, and when there is a sound signal, it becomes 19.2k bits per second. Moreover, the transmission speed of a sound signal becomes 9.6k bits per second. As for the compression expanding method of a sound signal, DigiTalk (trademark) of Rockwell, a DSP group's TrueSpeech (trademark), etc. are used.

[0030] The keyboard controller 84 is made as [ output / to CPU71 / the signal corresponding to reception and its input signal for the signal from the infrared receive section 24 ]. Moreover, the keyboard controller 84 outputs a keyboard 11 or the signal corresponding to the input from a mouse 12 to CPU71.

[0031] The synthetic circuit 85 compounds the output of the graphics operation section 75, and the output of the MPEG 2 video decoder 77 if needed, and is made as [ output / to the NTSC encoder 86 ]. The NTSC encoder 86 changes into the analog video signal of NTSC system the video data inputted from the synthetic circuit 85, and is made as [ output / to a television receiver 3 ].

[0032] For convenience, the bus is actually constituted by the PCI (Peripheral Component Interconnect) bus to which ROM73 thru/or HDD80, etc. of the local bus which connects CPU71 and RAM72, the ISA (Industry Standard Architecture) bus connected to the keyboard controller 84, and others is connected, although only one is shown. An ISA Bus is a bus (8 bits or 16 bits), and a PCI bus is a bus (32 bits or 64 bits). A PCI bus operates the rate between 25MHz thru/or 66MHz, and realizes a maximum of 528KB/second of throughput. This rate is a rate of 42 times or more of an ISA Bus.

[0033] An expansion slot 82 is an expansion slot for a PCI bus, and an expansion slot 83 is an expansion slot for an ISA Bus. A desired function is realizable by connecting the circumference circuit (for example, SCSI board) of a predetermined function to this expansion slot suitably.

[0034] In addition, between a local bus and a PCI bus and between the PCI bus and the ISA Bus, the bus bridge circuit (not shown) of dedication is prepared, respectively.

[0035] Drawing 7 expresses the example of a configuration of the button switch of the remote commander 6 which carries out remote control of the personal computer 1 besides AV equipments 2, such as a cable box, a television receiver 3, and IRD7, by wireless. The select button switch 131 is made as [ carry out / perpendicularly / to the top face of a remote commander 6 / it not only can operate it in the direction of a total of eight pieces of its four middle directions of slant besides the four directions of

the direction of four directions (direction actuation), but / it / depression actuation (selection actuation) ]. The menu button switch 134 is operated when displaying a menu screen on a television receiver 3. The exit button switch 135 is operated when returning to the original usual screen.

[0036] In the number of the broadcast channel to receive, the channel up-and-down button switch 133 is operated, when risen or downed. The BORIUMU button switch 132 is operated when rising or bringing down BORIUMU.

[0037] The figure carbon button (ten key) switch 138 with which the figure of 0 thru/or 9 is displayed is operated when inputting the figure currently displayed. When actuation of the figure button switch 138 is completed, the ENTA button switch 137 means figure input termination, and is operated following it. When a channel is switched, the burner (banner) which consists of the number of a new channel, a call sign (name), a LOGO, and an e-mail icon is displayed for 3 seconds. There are two kinds, the thing of an easy configuration of becoming this burner from what was mentioned above, and the thing of a more detailed configuration of that the name of a program (program), broadcast start time, current time, etc. are further included other than these, and the display carbon button 136 is operated when switching the class of this burner displayed.

[0038] Television / video change-over button switch 139 is operated when switching the input of a television receiver 3 to inputs (VCR etc.) from the tuner in which it is contained by the television receiver, or a video input terminal. Television / DSS change-over button switch 140 is operated when choosing television mode or DSS mode. If the figure button switch 138 is operated and a channel is switched, the channel before a switch is memorized, and the jump button switch 141 will be operated when returning to the original channel before this switch.

[0039] The language carbon button 142 is operated, when broadcast is performed by the language of two or more languages and predetermined language is chosen. Without minding a menu, the guide button switch 143 is operated, when displaying the General guide on a television receiver 3 directly.

[0040] The cable button switch 145, the television button switch 146, and the DSS button switch 147 are button switches for switching the device category of the code of the object for a function switch, i.e., the infrared signal by which outgoing radiation is carried out from a remote commander 6. The cable button switch 145 receives the signal transmitted through a cable with the cable box as one of the AV equipments 2, when displaying this on a television receiver 3, it is operated, and thereby, outgoing radiation of the code of the device category assigned to the cable box is carried out as an infrared signal. Similarly, the television button switch 146 is operated when displaying the signal received with the tuner built in the television receiver 3. The DSS button switch 147 receives the signal received through the satellite by IRD (Integrated Receiver/Decoder)7 as one of the AV equipments 2, and when making it display on a television receiver 3, it is operated. LED148,149,150 is turned on when the cable button switch 145, the television button switch 146, or the DSS button switch 147 is turned on, respectively. Thereby, when various carbon buttons are pushed, it is shown to the device of which category whether the code was transmitted.

[0041] When the cable power-source button switch 151, the television power-source button switch 152, and the DSS power-source button switch 153 are operated, respectively, a cable box, a television receiver 3, or the power source of IRD7 is turned on or turned off.

[0042] The muting button switch 154 is operated when setting up or canceling the muting condition of a television receiver 3. The sleep button switch 155 is operated when setting up or canceling the sleep mode which turns off a power source automatically when predetermined time of day comes, or when predetermined time amount passes.

[0043] The amplification button switch 201 is operated when expanding some subject-copy images currently displayed on the television receiver 3. The dilation ratio modification button switch 202 is operated when changing the dilation ratio of an amplification image. The amplification field modification button switch 203 is operated when changing the field which shows the amplification image of a subject-copy image.

[0044] Drawing 8 expresses the example of a configuration of the small stick switch used as a select button switch 131. This small stick switch is made into the structure where the lever 162 projects from

the body 161. And when it rotates corresponding to the actuation direction when direction actuation of the select button switch 131 is carried out in the direction of eight pieces within the level surface, and selection actuation (vertical actuation) of the select button switch 131 is carried out, it is made as [ depress / a lever 162 / perpendicularly ].

[0045] In addition, as this small stick switch, the model RKJXL1004 by Alps Electric Co., Ltd. can be used, for example. Thickness of the body 161 of this small stick switch is set to about 6.4mm.

[0046] Drawing 9 expresses the eight actuation directions in the level surface of a lever 162. As shown in this drawing, the lever 162 is made as [ carry out / in the direction of / within the eight level surface shown by A thru/or H / direction actuation ].

[0047] Drawing 10 expresses the example of a configuration inside a remote commander 6. As shown in this drawing, the contacts A and H inside the body 161 of a small stick switch are made as [ flow / with either of the terminals A and D / a terminal C1 ], when it corresponds in the directions A and H of eight pieces shown in drawing 9, respectively and a lever 162 is operated in the direction of A thru/or D.

Moreover, when a lever 162 is rotated in the direction of either of the directions E and H, it is made as [ flow / any one of the terminals E and H of these and a terminal C2 ]. Moreover, it is made as [ flow / between H and A and between D and E / both the terminals C1 and C2 ]. Furthermore, when a lever 162 is operated perpendicularly, it is made as [ be / in switch-on / a terminal 1 and a terminal 2 ].

[0048] The switch-on of these terminals of a body 161 is made as [ carry out / by CPU172 which constitutes a microcomputer 171 / a monitor ]. Thereby, CPU172 can detect direction actuation and selection actuation of the select button switch 131.

[0049] CPU172 always scans the button switch matrix 182, and detects actuation of the remote commander 6 shown in drawing 7 of other button switches again.

[0050] CPU172 performs various kinds of processings, and makes RAM174 memorize required data suitably according to the program memorized by ROM173.

[0051] When outputting an infrared signal, CPU172 drives LED176 and makes an infrared signal output through the LED driver 175.

[0052] Next, with reference to the flow chart of drawing 11, it is the image currently displayed on the television receiver 3, and the actuation in the case of carrying out the enlarged display of some subject-copy images generated with the personal computer 1 is explained.

[0053] First, in step S1, CPU71 of a personal computer 1 stands by until the amplification button switch 201 of a remote commander 6 is operated. A user operates the amplification button switch 201, when carrying out the enlarged display of some subject-copy images currently displayed on the television receiver 3. In a remote commander 6, if CPU172 of a microcomputer 171 scans the button switch matrix 182 and detects actuation of the amplification button switch 201, it will output the signal corresponding to actuation of the amplification button switch 201 to the LED driver 175. The LED driver 175 controls LED176 and makes the infrared signal corresponding to a control signal output corresponding to this control signal.

[0054] The infrared receive section 24 of a personal computer 1 receives this infrared signal, and outputs an input signal to the keyboard controller 84. The keyboard controller 84 generates the signal corresponding to this infrared signal, and outputs it to CPU71 through a bus. CPU71 is carried out in this way, controls the graphics operation section 75 for the input of the signal corresponding to actuation of the amplification button switch 201 in step S2 at the time of a carrier beam, and superimposes and displays on a subject-copy image the amplification image to which some subject-copy images were expanded.

[0055] That is, for example, an image as shown in a television receiver 3 at drawing 12 shall be generated and outputted from the graphics operation section 75, and shall be now displayed on the television receiver 3 through the synthetic circuit 85 and the NTSC encoder 86. In this condition, when the amplification button switch 201 is operated, CPU71 performs enlarged display processing in step S2. That is, the graphics operation section 75 is controlled, the image to which some subject-copy images were expanded is generated, and it is made to display through the synthetic circuit 85 and the NTSC encoder 86, as shown in a television receiver 3 at drawing 13. Drawing 12 is compared with drawing

13 , and in drawing 13 , some images of a subject-copy image are expanded and are displayed so that clearly. Thereby, though the user is separated from the television receiver 3, he can recognize the image to accuracy.

[0056] Next, it progresses to step S3 and CPU71 judges whether direction actuation of the select button switch 131 was carried out. When judged with direction actuation of the select button switch 131 having been carried out, it progresses to step S7, and CPU71 controls the graphics operation section 75, and performs amplification domain-migration processing. At this time, an amplification image is moved in the direction corresponding to the direction of actuation of the select button switch 131. For example, in the condition which shows in drawing 13 , when direction actuation is made in the direction of the lower right, the amplification field of a subject-copy image is moved in the direction of the lower right, as shown in drawing 14 and drawing 15 .

[0057] Therefore, by carrying out direction actuation of the select button switch 131 in the direction of arbitration, a user can display a part of all fields of a subject-copy image as an amplification image, and can check it.

[0058] In step S3, when judged with direction actuation of the select button switch 131 not being carried out, it progresses to step S4 and CPU71 judges whether the dilation ratio modification button switch 202 of a remote commander 6 is operated. When judged with the dilation ratio modification button switch 202 being operated, it progresses to step S8, and CPU71 controls the graphics operation section 75, and performs dilation ratio modification processing. The dilation ratio modification button switch 202 is operated, and drawing 16 shows the example of a display when the graphics operation section 75 sets a dilation ratio as a larger value.

[0059] If a user continues operating the dilation ratio modification button switch 202, the graphics operation section 75 will decrease a dilation ratio shortly conversely, when a dilation ratio is gradually changed into a big value and is attained to maximum. And when a dilation ratio reaches the minimum value, a dilation ratio is increased again. Thus, a user operates the dilation ratio modification button switch 202 until a desired dilation ratio is obtained. When actuation of the dilation ratio modification button switch 202 is canceled, the dilation ratio at that time is held.

[0060] In step S4, when judged with the dilation ratio modification button switch 202 not being operated, it progresses to step S5 and CPU71 judges whether the amplification field modification button switch 203 of a remote commander 6 is operated. When judged with the amplification field modification button switch 203 being operated, it progresses to step S9, and CPU71 controls the graphics operation section 75, and performs amplification field modification processing. For example, in the display condition shown in drawing 14 , a user's actuation of the amplification field modification button switch 203 makes an amplification image as [ carry out / the enlarged display of the bigger range ], as shown in drawing 17 . Also in this case, if the amplification field modification button switch 203 continues being operated and an amplification field will reach breadth and maximum gradually like the case of the dilation ratio modification button switch 202, an amplification field will become narrow shortly at reverse. And when the minimum value is reached, an amplification field becomes larger again. A user can display the amplification image of desired magnitude by canceling actuation of the amplification field modification button switch 203, when the amplification field of desired magnitude is obtained.

[0061] In step S5, when judged with the amplification field modification button switch 203 not being operated, it progresses to step S6 and it is judged whether the amplification button switch 201 was operated again. When judged with the amplification button switch 201 not being operated, return and processing after it are repeatedly performed by step S3. In step S6, when judged with the amplification button switch 201 having been operated, it progresses to step S10, and CPU71 controls the graphics operation section 75, and stops an enlarged display. For example, in the display condition shown in drawing 14 , if a user operates the amplification button switch 201 again, the display condition will change to the display condition shown in drawing 12 .

[0062] Although the case where some subject-copy images were expanded above was explained as an example, also when reducing, it is possible to apply this invention. That is, this invention can be applied when carrying out the scaling of the subject-copy image.

[0063] In addition, although for example, these people are indicating previously the concrete example of the processing which expands or reduces some images as Japanese Patent Application No. No. 77977 [ eight to ], if the command of a scaling is inputted from a keyboard, a mouse, etc., operability will get worse. That is, it is prepared in order that a keyboard, a mouse, etc. may originally input a command into the personal computer as OA equipment, and let it be a premise to perform the actuation on the platform of a comparatively near location. On the other hand, the remote commander is prepared in order to carry out remote control of the AV equipment originally, and let it be a premise to be operated from a comparatively distant location in a location without platforms, such as a desk. Therefore, it becomes that it is [ actuation ] easier to have made it operate it with a remote commander. Furthermore, it becomes possible by using the remote commander of a personal computer also [ remote commander / of an AV equipment ] to use a personal computer freely as a kind of an AV equipment.

[0064]

[Effect of the Invention] Since the scaling image which carried out the scaling of some subject-copy images currently displayed on the display by remote operation according to the image display control unit according to claim 1, the image display control approach according to claim 6, and the record medium according to claim 7 was suitably displayed like the above, also in the location distant from the display, it becomes simply possible to recognize the image of a display to accuracy.

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[Translation done.]

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- 2.\*\*\*\* shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

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## DESCRIPTION OF DRAWINGS

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### [Brief Description of the Drawings]

[Drawing 1] It is the perspective view showing the example of AV structure of a system adapting the image display control unit of this invention.

[Drawing 2] They are other perspective views showing the example of AV structure of a system adapting the image display control unit of this invention.

[Drawing 3] It is the perspective view showing the configuration of the appearance seen from the front face of the personal computer of drawing 1 .

[Drawing 4] It is the perspective view showing the condition of having opened the door of the personal computer of drawing 3 .

[Drawing 5] It is the perspective view showing the condition of having opened the door of the rear face of the personal computer of drawing 1 .

[Drawing 6] It is the block diagram showing the example of a configuration inside the personal computer of drawing 1 .

[Drawing 7] It is the top view showing the example of a configuration of the remote commander 6 of drawing 1 .

[Drawing 8] It is the perspective view showing the configuration inside the select button switch of the remote commander 6 of drawing 7 .

[Drawing 9] It is drawing explaining the actuation direction of the lever 162 of drawing 8 .

[Drawing 10] It is the block diagram showing the example of a configuration inside the remote commander 6 of drawing 1 .

[Drawing 11] It is a flow chart explaining actuation of the personal computer 1 of drawing 6 .

[Drawing 12] It is drawing showing the example of a display in the television receiver 3 of drawing 1 .

[Drawing 13] It is drawing showing the example of a display in the television receiver 3 of drawing 1 .

[Drawing 14] It is drawing showing the example of a display in the television receiver 3 of drawing 1 .

[Drawing 15] It is drawing showing the example of a display in the television receiver 3 of drawing 1 .

[Drawing 16] It is drawing showing the example of a display in the television receiver 3 of drawing 1 .

[Drawing 17] It is drawing showing the example of a display in the television receiver 3 of drawing 1 .

### [Description of Notations]

1 Personal Computer, 51 Infrared Dispatch Section, 75 Graphics Operation Section, 77 MPEG 2 Video Decoder, 85 Composition Circuit, 86 NTSC Encoder, 201 Amplification Button Switch, 202 Dilation Ratio Modification Button Switch, 203 Amplification Field Modification Button Switch 3 Television Receiver 4 CRT Five Loudspeakers 6 Remote Commander 24 Infrared Receive Section 33 DVD Drive

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[Translation done.]

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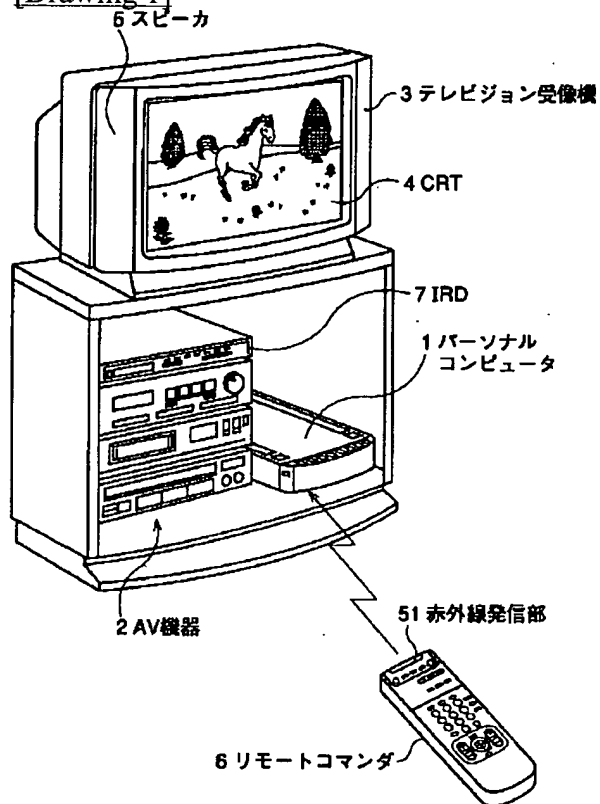
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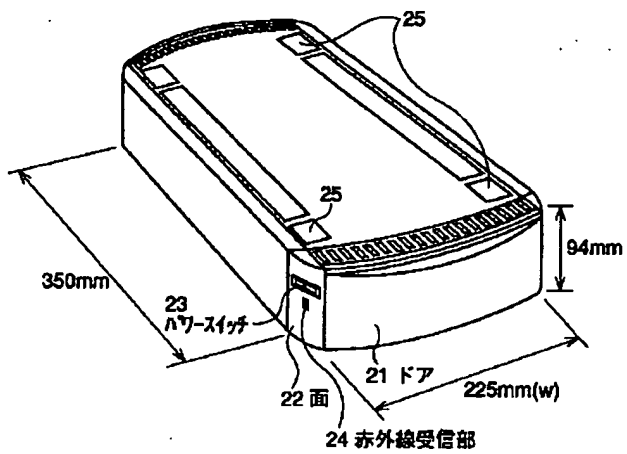
DRAWINGS

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[Drawing 1]

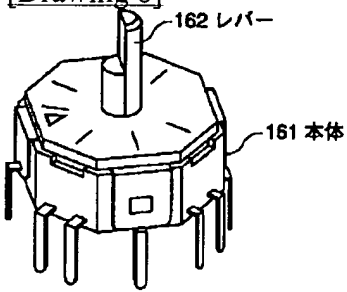


[Drawing 3]

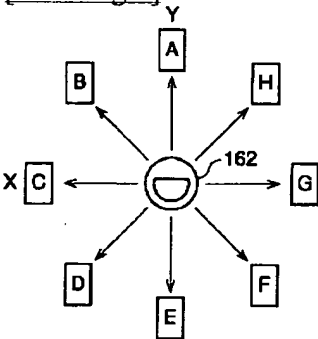


パーソナルコンピュータ 1

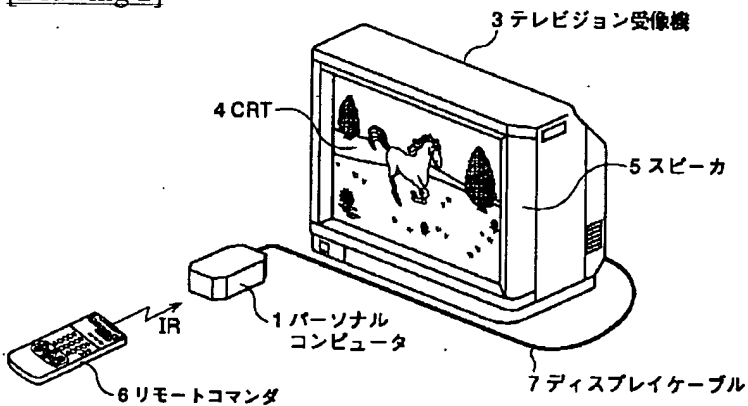
[Drawing 8]



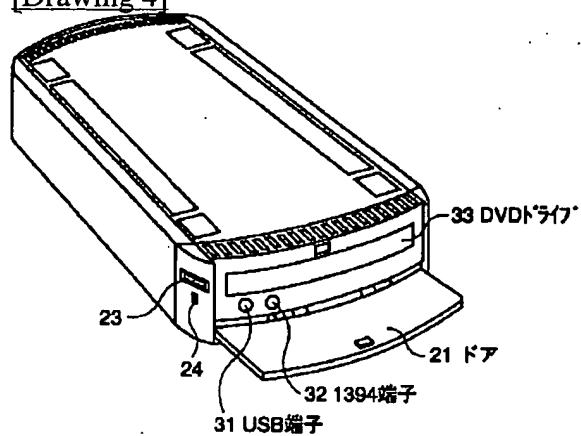
[Drawing 9]



[Drawing 2]

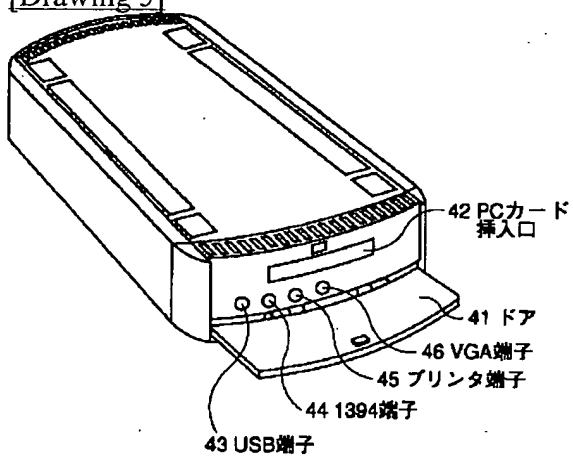


[Drawing 4]



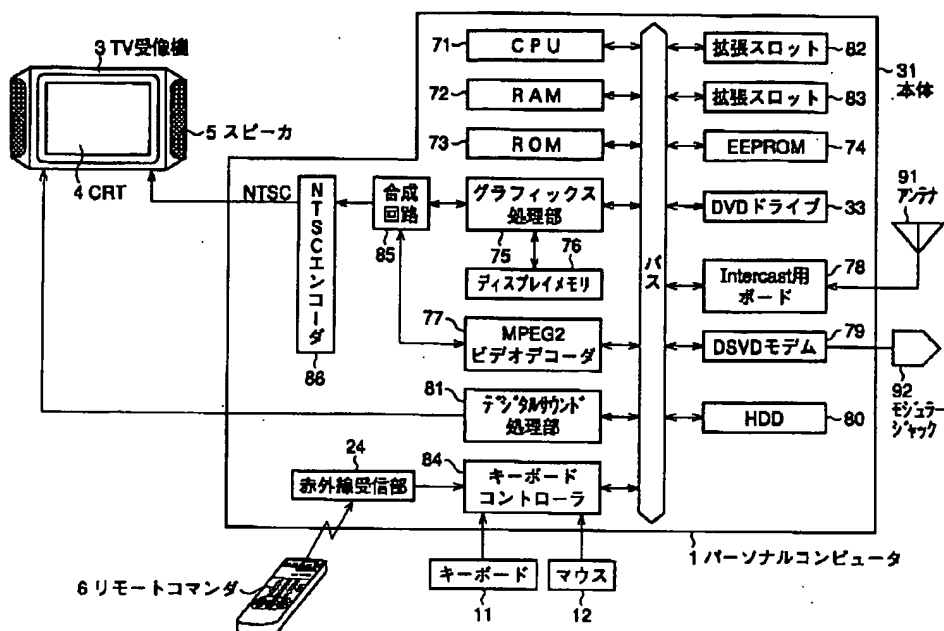
パーソナルコンピュータ 1

[Drawing 5]

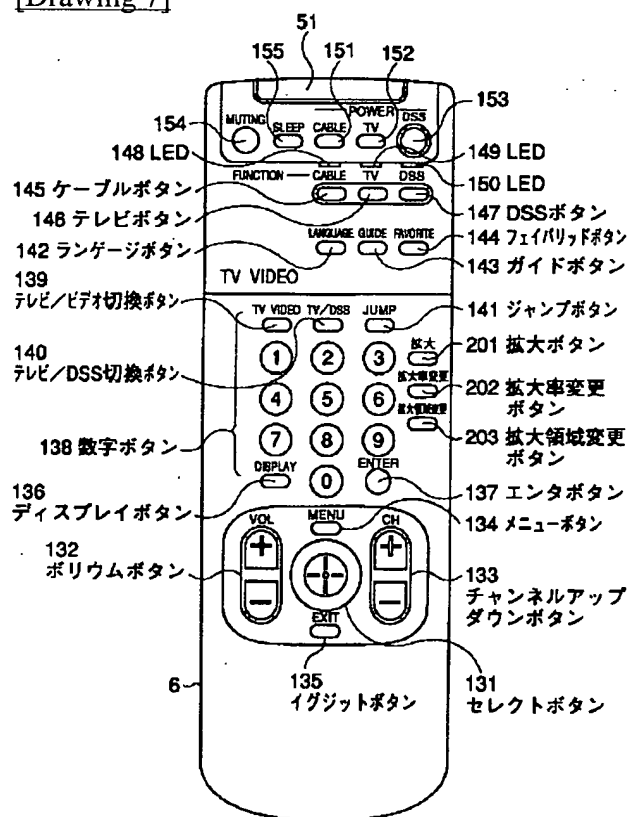


パーソナルコンピュータ 1

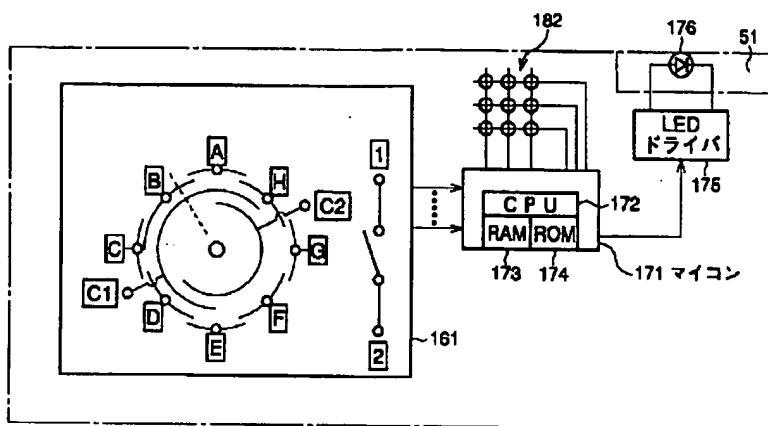
[Drawing 6]



[Drawing 7]

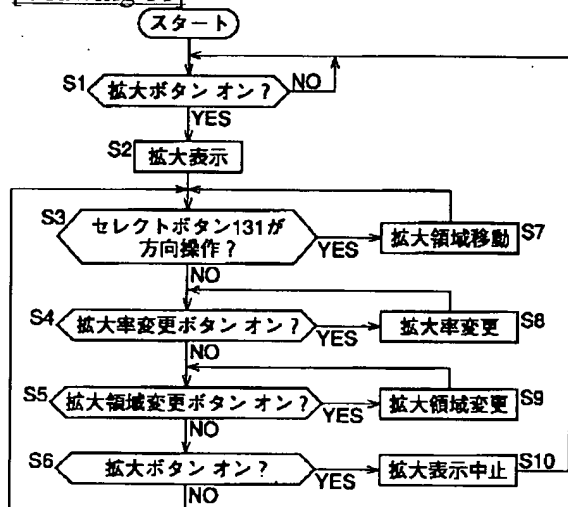


[Drawing 10]

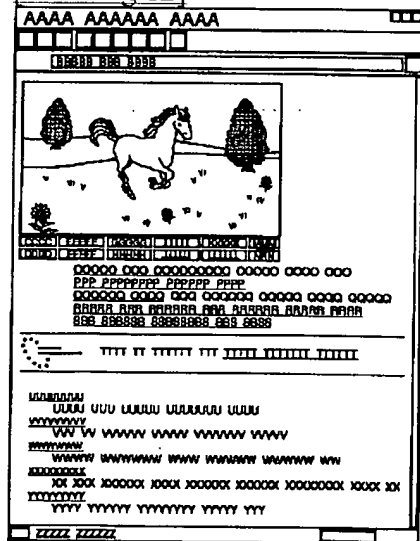


リモートコマンド6

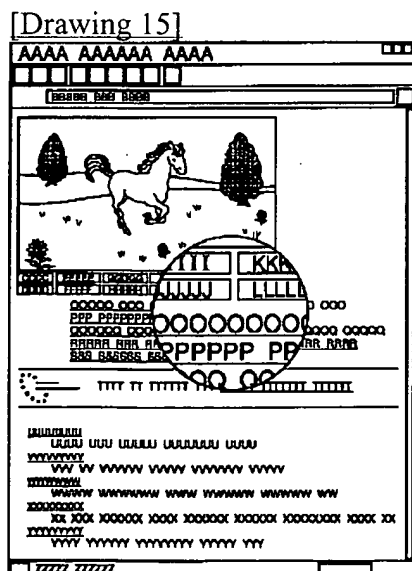
[Drawing 11]



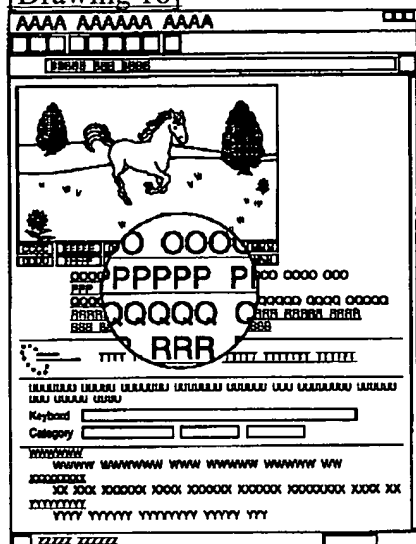
[Drawing 12]



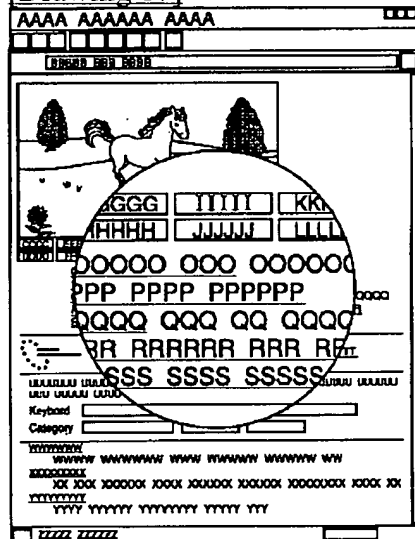
[Drawing 13]



[Drawing 16]



[Drawing 17]



[Translation done.]

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